

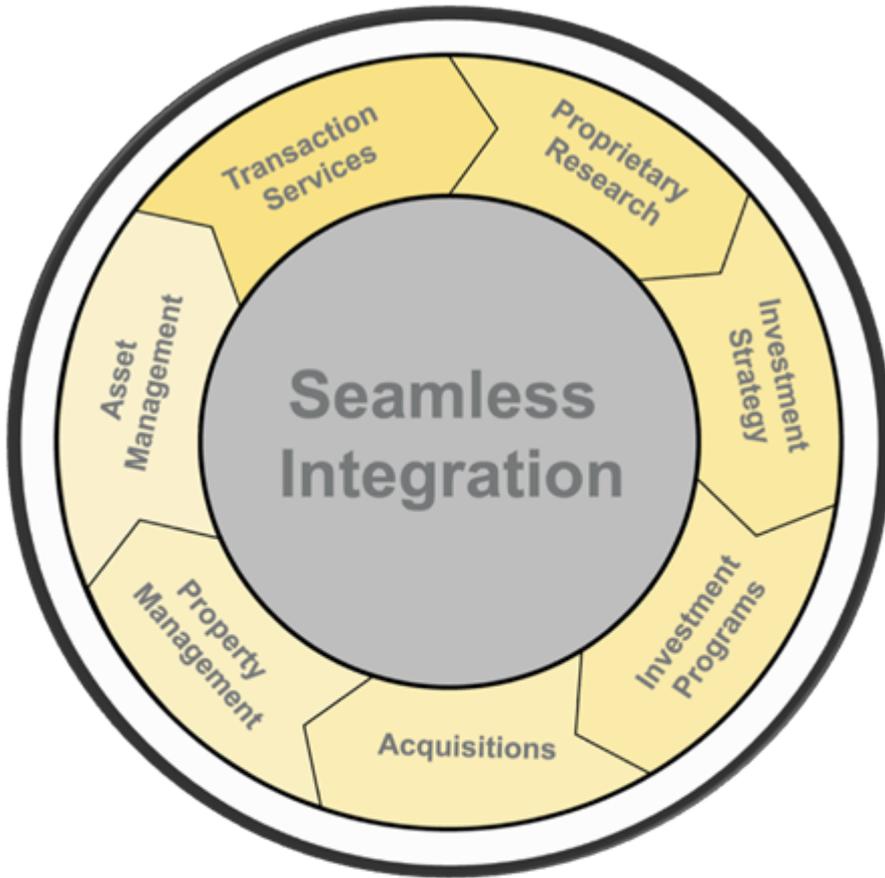
Renewable Energy In Commercial Real Estate: Opportunities, Challenges, and Solutions



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Company Overview

- Founded in 1958
- Headquartered in Santa Ana, California
- Approximately 6,000 employees
- 130 owned and affiliate offices
- Full service commercial real estate firm with three lines of business

Grubb & Ellis Property Operations:



- Microsoft
- IBM- US
- Kraft
- Citigroup
- Aetna
- The Hartford
- Capital One
- Reed Elsevier
- Moody's

290 MSF under management in North America, Sweden, Ireland, China, South Korea, and Qatar

47% Corporate Facility Management

50% Investment Property Management

3% Accounting / Inspections

Inspections
1%

Accounting Only
2%

Property Management
50%

CFM
47%

Commercial Real Estate Energy Alliance Members

Building Owners and Operators

- AtSite
- Bank of America
- Big Rock Partners, LLC
- Calvert Group, Ltd.
- CB Richard Ellis Group, Inc.*
- Core Properties, Inc.
- Corporate Office Properties Trust
- Cushman & Wakefield Inc.*
- Dacra Development
- Edens & Avant
- Forest City Enterprises, Inc.
- Glenborough, LLC
- Grubb & Ellis Company*
- H&R Block Inc.
- HAL Real Estate Investments, Inc.
- Hilton Worldwide*
- Hines Interests Limited Partnership
- Hyatt Hotels Corporation
- InterContinental Hotels Group
- IBM
- Jones Lang LaSalle*
- Liberty Property Trust
- MGM MIRAGE*
- Marriott International, Inc.
- Opus Corporation
- Regency Centers Corporation
- Ryan Companies US, Inc.
- Schaad Companies
- Simon Property Group, Inc.
- Stream Realty Partners, L.P.
- The PNC Financial Services Group, Inc.
- The Related Companies, L.P.
- The Walt Disney Company*
- The Westfield Group
- Tishman Speyer Properties
- Transwestern Property Company*
- U.S. General Services Administration*
- USAA Real Estate Company*
- Vornado Realty Trust
- Wright Runstad & Company
- Wyndham Hotels and Resorts, LLC*

Associations

- American Hotel & Lodging Association*
- ASHRAE*
- BOMA International*
- IES*
- IFMA
- International Council of Shopping Centers*
- NAIOP*
- National Multi Housing Council
- Sustainability Roundtable Inc.
- The Real Estate Roundtable*



**Steering Committee Member*

**Commercial Building
Energy Alliances**

- 5 million buildings
- 75 billion square feet
- 1.5 trillion kw-hr consumption (36% of U.S. use)
- 19% of overall U.S. energy
- 18% of GHG emissions
- Rising energy costs (one of top three controllable expenses)



- Very small and relatively flat since 1990
- Retail more active than office
- Regional focus based on incentives
- Increasing interest in CHP due to better economics

- Multiple asset types
 - Size
 - Location
 - Age
 - Design
 - Lease structure
- Ownership structure
 - Corporate owner/occupiers: more financial flexibility, longer paybacks, fewer lease complications, sustainability goals
 - Investment properties: shorter paybacks, complex lease structures, impact of tenant decisions/needs





- Financial
 - Economic conditions squeezing value, staffing, cash flow +
 - Long payback for investments in renewable energy
- Owner concerns
 - Don't want to be first with new technology
 - Warranties on existing systems
 - Integration with existing systems
- Availability of net metering and restrictive utility rules

- Long term: technology advances that drive down cost
- Short term:
 - Start the dialog
 - Find your niche
 - Bring solutions that address CRE's needs and concerns



- Define your sweet spot: size, location, ownership, type of building
- Bring solutions that have the potential to meet CRE financial requirements
- Provide good operating data from other industries
- Address concerns about system integration, warranties, and operator skills (perhaps Build-Own-Operate-Maintain)



Questions

U.S. DEPARTMENT OF
ENERGY

Energy Efficiency &
Renewable Energy



**Commercial Building
Energy Alliances**